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## SAFETY PRECAUTIONS

### Caution

This appliance is for outdoor use only. This appliance can produce carbon monoxide which has no odor. Using it in an enclosed space may cause death. Do not use in caravans, tents, marine craft, cars, mobile homes or similar locations.

### Caution

This appliance is not intended for the supply of drinking water. This appliance is intended for the supply of heated water, for the purpose of showering, washing and cleaning only.

### Caution

Always cover the appliance when not in use, and this appliance could not be exposed to strong wind or rain.

### Warning

Use two shifting spanners when connecting the gas regulator hose to the appliance or damage to the gas valve may occur.

### Warning

Check and confirm safe water temperature before using this appliance water from this appliance may be very hot.

### Warning

If the outside temperature is near or below freezing 0°C ensure that the system is properly drained. See instructions inside.

### DANGER!

Install and properly vent the appliance. Failure to properly install the appliance in this manual can result in unsafe operation of the appliance. To avoid the risk of fire, explosion, or asphyxiation from carbon monoxide, never operate this appliance unless it is installed properly and has an adequate air supply for proper operation. Be sure to inspect the flue terminal for proper installation a initial start-up, and at least annually thereafter.

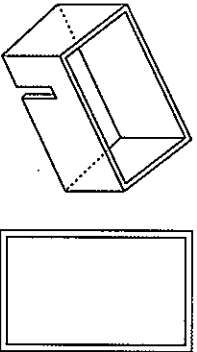
## SAFETY INSTRUCTIONS

This appliance shall only be used in an open-air situation with natural ventilation, without stagnant areas, where gas leakage and products of combustion can rapidly dispersed by wind and natural convection.

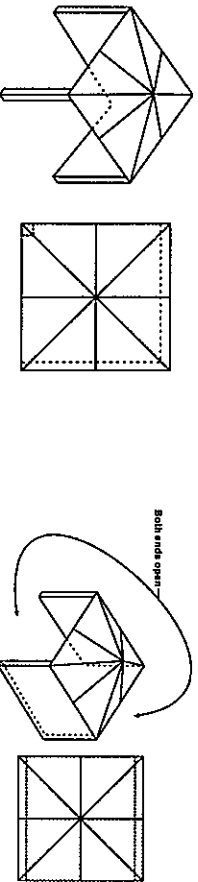
The following figures are show suitable outdoor areas for use with this appliance.

Rectangular areas have been use in these figures, the same principles apply to any other shaped areas.

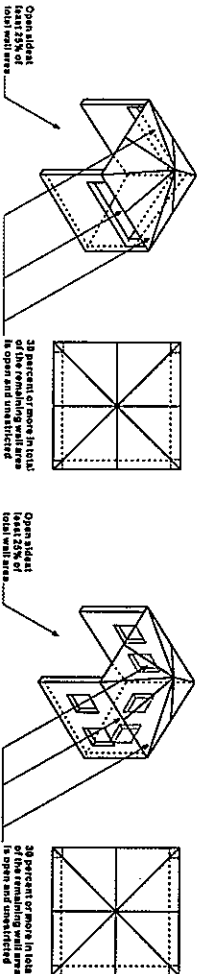
- 1) An area with walls on all sides but without overhead cover:



- 2) With a partial enclosure and include an overhead cover and no more than two walls.



- 3) With a partial enclosure and include an overhead cover and more than two walls, the following shall need to fulfilled:
  - i) At least 25% of the total wall area is completely open.
  - ii) 30% or more in total of the remaining wall side, back and front wall areas is open and unrestricted.
  - iii) In the case of balconies, 20% or more of the total wall area shall remain open and unrestricted.



## SYMBOLS EXPLANATION

According to the danger and damage to distinguish different warning notice:

|  |           |                                                                                                        |
|--|-----------|--------------------------------------------------------------------------------------------------------|
|  | Caution   | Neglect this notice and execute illegal operations may result in injury or death.                      |
|  | Attention | Neglect this notice and execute illegal operations may result in injury, death and/or property damage. |

Requirement in order to use the appliance safely and comfortably, please understand the content presented.

## ADDITIONAL WARNINGS

1. Do not leave unattended when the appliance is operating.
2. Do not use this appliance if it has damaged or worn seals.
3. Do not use this appliance if it is leaking, damaged or does not operate properly.
4. Do not operate from a non-upright position.
5. CAUTION: Accessible parts may be very hot. Keep young children away.
6. The exhaust gas and top of the appliance is hot! Do not place hands or any other object near the top of the appliance.
7. Do not use in high wind conditions. Rated for up to 10 MPH.
8. If there is a leak on your appliance (or smell of gas), immediately turn off the gas container valve, move the appliance to a well-ventilated location away from any ignition sources. Check for leaks by using soapy water. Do not try to detect leaks using a flame.
9. IT MAY BE HAZARDOUS TO ATTEMPT TO FIT OTHER TYPES OF GAS CONTAINERS.
10. Gas container shall be changed in a well-ventilated location, preferably outside away from people and any sources of ignition, such as naked flame, pilot flames, electric heaters or similar equipment.
11. Use ULPG gas only.
12. USE OUTDOORS ONLY. The appliance do not suitable permanent fixed in one place. Do not use in a building, garage or any other inclosed area. Do not use in a mobile appliance, such as trolley or similar appliances. Never use this appliance as a heater.
13. Only use the hose assembly as supplied with this appliance for connection to the container. DO NOT USE ADAPTORS.
14. Gas regulator with 1500mm hose connection to the appliance with a shifting spanner. Do not over tighten, this may cause damage in the gas regulator. Gently tighten then spray soapy water as a leak detector.
15. Avoid kinking and twisting the gas hose. Keep the fuel supply hose away from any heated surfaces.
16. This appliance will be hot during and after use. Do not move the appliance when in use. Allow appliance to cool to 45°C before moving or storing.
17. Should overheating occur or the gas supply fails to shut off turn off the gas supply at the gas container.
18. Always cover the appliance when not in use, it must be protected from rain.

19. This appliance is to be stored in a dry and well ventilated location free from direct sunlight heat and ignition sources. If being stored indoors ensure that the location complies with AS/NZS1596.
20. This appliance must only be serviced by an authorised servicer.

## USE PRECAUTIONS CHECK FOR GAS LEAKS

1. Check seals between the appliance and the gas container are all the way on and in a good condition before connecting the gas container.
2. To safely check for leaks, spray soapy water on the gas connection to see if bubbles appear. The formation of bubbles indicates a gas leak. If there is a gas leak present, immediately shut off the gas container and do not try to operate the appliance.
3. Do not try to detect leaks using a flame.
3. The connection points to check are:
  - Between the gas container and the gas hose
  - Between the washer and brass parts of the gas hose
  - Between the gas hose and the gas connector
  - Between the gas connector and the hot water system
4. There is a washer seal inside the gas hose connector. If the washer is missing, worn or damaged, you must obtain a replacement from an authorized servicer.
5. To check if gas remains in the container, disconnect from the appliance and hold the gas container in a vertical position then shake from side to side. If there a sound or feel of liquid movement inside the container contains gas.
6. Change the gas container outside in a well-ventilated location away from people and ignition sources, such as naked flames, pilot lights and electrical equipment such as heaters.

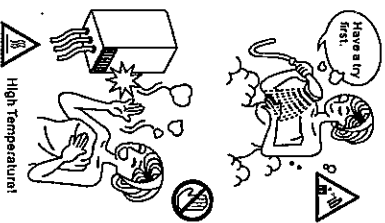
## AVOID SCALD

In order to avoid scalding, check the water temperature before showering.

During the use or right after finish, do not touch the outer casing except the knobs to avoid scald.

## THINGS TO DO IN AN ABNORMAL OR EMERGENT SITUATION

1. Shut off both the water knob and the gas knob.
2. Do not use shower head.



To prevent accidents like fires, smoke, etc., the gas source, water source must all be cut off immediately in case any abnormality (like a fuming or smelling air inlet/ flue gas outlet pipe, etc.) is discovered, and an authorised servicer must also be contacted.

## USES

Do not use this appliance for any purposes except for producing hot water. Do not modify this appliance.

## NO DISMANTLING THE APPLIANCE!

To avoid accidents, never dismantle the appliance without authorization.

## USING AUXILIARY PRODUCTS

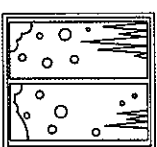
When using the appliance in low water pressure area, do not use shower head avoid scalding.

## AVOID DAMAGE FROM FREEZING WATER

Be sure to drain off the residual water after each use in winter, to avoid damage to the appliance should the water freeze.

## NOT USING FOR A LONG PERIOD

In order to prevent freezing water or gas leakage, please discharge accumulated water inside the appliance, cut gas and electricity supply when the appliance is not using for a long period.



## GAS ACCIDENT PREVENTION

Make sure it is combusting while using and flameout after use.

## PRODUCT FEATURES & APPEARANCE PRODUCT FEATURES

1. Water controlled automatic ignition: applicable water pressure between 15kPa-1000kPa opens the ignition circuit for easy and convenient operation
2. Pulse igniter, 100% rate of ignition.
3. Auto cut off protection, the auto cut off protection will shut the gas supply off immediately in the event of flameout of reduce the risk of gas leakage.
4. Removable drain valve to avoid water pipe and regulator damage caused by freezing water. Please do not adjust the screw inside of the drain plug, remove the plug as whole unit.
5. The water temperature can be adjusted freely.
6. Winter/Summer switch for energy saving during summer and winter time.

7. LED temperature display.
8. Handle for easy carrying during transportation.

## SAFETY FEATURES

### 1. Auto-cut off protection

The auto-cut-off protection will shut off the gas supply immediately if the flame goes out for any reason.

### 2. Anti-dry combustion protection

Should dry combustion occur for any reason, the gas supply will be immediately and automatically shut off.

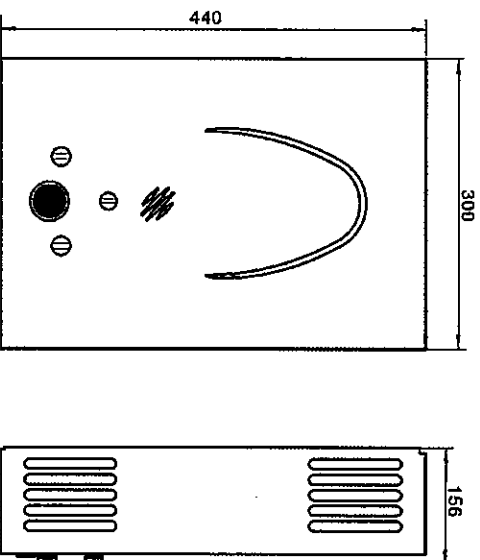
### 3. Anti-freezing protection

When the temperature is below freezing, remove the water discharge valve to discharge accumulated standing water inside the internal pipes. This will keep the appliance from freezing.

### 4. Over water pressure protection

When water pressure is over 1000kPa, the appliance will automatically relieve the excessive pressure to avoid damage to its internal components.

## PRODUCT APPEARANCE & DIMENSION IN MILLIMETRE



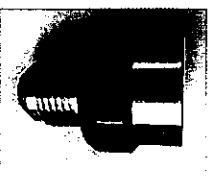
6

## HANDLING THE APPLIANCE

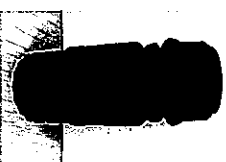
1. **For outdoor use only**-the appliance must be used outdoors only. Remove appliance from the box and remove all transit materials such as the plastic foam, and plastic connection end caps. Combustible surfaces, fabrics, flammable materials must be kept at least 1000mm away from the sides and top of the appliance while it is operating.
2. **CARBON MONOXIDE HAZARD**-USING THIS APPLIANCE IN AN ENCLOSED SPACE MAY CAUSE DEATH. DO NOT USE IN CARAVANS, TENTS, MARINE CRAFT, CARS, MOBILE HOMES OR SIMILAR LOCATIONS.
3. The appliance is designed to be hung upright against a non-combustible vertical surface. Do not operate from a non-upright position. Doing so can be dangerous and will damage the appliance.
4. Do not operate the appliance in a dusty environment or within 300mm of any electrical appliances or electrical wires.
5. During operation ensure that both air inlets and the top exhaust are kept free from obstructions. Do not block the top exhaust or the air inlet at any time. This can cause incomplete combustion and can lead to gas poisoning.

## HOW TO USE THE CONNECTOR

### 1. CONNECTOR



GAS INLET CONNECTOR  
BSPF 1/2" x 5/8 UNF MALE FLARE



WATER INLET CONNECTOR  
BSP 1/2"-Ø9.5mm MALE

### 2. PREPARATION

- 1) ONLY USE IN WELL-VENTILATED AREAS. CARBON MONOXIDE HAZARD- USING THIS APPLIANCE IN AN ENCLOSED SPACE MAY CAUSE DEATH.-DO NOT USE IN CARAVANS, TENTS, MARINE CRAFT, CARS, MOBILE HOMES OR SIMILAR LOCATIONS.
- 2) Find a suitable sturdy, non-combustible vertical surface to hang the appliance on. The surface should be at least 1000mm clear from the sides and 1000mm from the top of all combustible surfaces, fabrics, flammable materials, and people.
- 3) Use ULPG gas only.
- 4) Open carton box (Picture 1) and remove appliance from the box and remove all transit material such as the plastic, foam and plastic connection end caps (Picture 2 & 3). Hang the appliance on a suitable vertical surface by the handle attached to the back cover of the appliance or hanging kit (Picture 4).

7



Picture 1



Picture 2



Picture 3



Picture 4

- 5) Install two "D" cell batteries (included) in the compartment on the bottom of the appliance. Check the batteries are facing the correct direction.
- 6) Ensure the ignition switch located on the bottom of the appliance is turned to the "on" position.
- 7) This appliance is designed to use LPG supplied in refillable gas container with QCC1 valve.
- 8) Use shifting spanner to connect the gas inlet connector (Picture 5) and water inlet connector (Picture 6) before install gas supply line and water inlet hose to the appliance. Attached the flexible hose and regulator to the "Gas inlet" (Picture 7). Do not over tighten. Over tightening may cause a Gas leak. Ensure that you use supplied washers (Picture 8-10) and "Teflon" tape on all connectors and check for any gas smell before ignition as instruction. Make sure the gas inlet connector and water inlet connector are screwed all the way on.



Picture 5



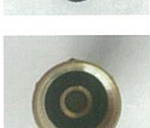
Picture 6



Picture 7



Picture 8



Picture 9



Picture 10

- 9) Connect the other end of the flexible hose and gas regulator to the gas container. Hand-tighten the connection in an anti-clockwise direction. Do not place the gas container directly beside or above the appliance.
- 10) Connect the supplied shower head and flexible hose. Make sure to insert the supplied washer at the connections (Picture 11 & 12). After that, use shifting spanner to connect the opposite end of the hose to the brass fitting on the bottom of the appliance marked "Water outlet" (Picture 13). Do not over tighten. Note that you can use the applied "Teflon" tape to this threaded connection to avoid leaks. CAUTION: Make sure the shower head direction is not face to the appliance during showering, to avoid the flameout problem.



Picture 11



Picture 12



Picture 13

- 11) Place at a comfortable height without putting stress on the gas hose.
- 12) Before opening gas container valve, check the coupling nut for tightness. When appliance is not in use, turn off gas container valve on supply container. Do not try to detect leaks using a flame.
- 13) Spray soapy water to test for gas leaks before operation, after make sure all parts are connected well, turn the gas container on in an anticlockwise direction one full turn.
- 14) Never use gas container if visibly rusted, damaged or out of date.
- 15) Clean and inspect the hose before each use. If there is evidence of abrasion, wear, cuts or leaks, the hose must be replaced prior to operation.

### 3. STARTING

- 1) Turn the gas valve on your gas container all the way open.
- 2) Adjust the temperature of the water flowing from the shower head by turning the "gas" and "water" knobs.
- 3) Turn the gas knob towards to " 🔥 " (symbol in Red) direction will increase gas flow. Turn the gas knob towards to " 🔧 " (symbol in Red) direction will decrease gas flow.
- 4) Turn the water knob towards to " 🔥 " (symbol in Red) direction will increase water flow. Turn the water knob towards to " 🔧 " (symbol in Red) direction will decrease water flow.
- 5) For higher temperature, increase the gas flow and decrease the water flow.
- 6) Turn on the incoming water supply. Ensure that you have adequate water pressure between 15KPa-1000KPa.
- 7) Once water is flowing through the system, the appliance will ignite. During ignition there will be a series of audible clicks and then the burner will ignite. If the burner does not ignite after 5 seconds, refer the section on trouble shooting.

**CAUTION** Take care to test the temperature of the water flow from the shower head, as it may be hot enough to cause scalding.

### 4. WINTER/SUMMER TEMPERATURE CONTROL

- 1) This model has Winter/Summer switch, the user can adjust the appliance use of water and gas until it's comfortable.
- 2) In case those who install the water valves themselves, cold water should not be turned up too much, in order to avoid the less pressure by diffuent will affect this appliance's normal running.
- 3) In some place, the water pressure may be too strong and thus water can not be heated. In this case, please turn down the water-in valve.



### 5. SHUT OFF

To temporarily stop the operation of this appliance, merely shut off water knob control (water inlet valve to cease water flow and the flame fire will extinguish automatically). After you have finished using the water, please shut off the water knob control and gas knob control.

**CAUTION** The appliance should not be used continuously for an extended period so as to ensure its lifetime.

## 6. STORAGE

- 1) After using, turn the gas container valve in a clockwise direction to the "off" (close) position. The burner will continue to operate until all gas has been bled from the hose and regulator assembly.
- 2) Wait for the flame to go out, after that to turn the appliance control valve(s) off.
- 3) Disconnect the shower hose from the "water output", allow all water to drain out from hosing before rolling up and storing away.
- 4) Disconnect the regulator and hose assembly from the appliance and gas container and store away.

## 7. DISCONNECTING FROM GAS CONTAINER

- 1) Check the appliance is fully extinguished, the gas container control valve is in the fully "off" position and all surfaces are cool enough.
- 2) Loosen the connection to the gas container in a clockwise direction.

## DAILY INSPECTION & MAINTENANCE

The appliance, gas pipes and hoses should be checked and maintained by an authorised servicer every 6-12 months. If you find joints that are not tightly secured or if there are cracks or corrosion anywhere, you should stop using the appliance and perform the necessary maintenance immediately.

**CAUTION:** The appliance will still be hot shortly after use. Avoid draining off the residual water until the water cools down, to avoid being scalded.

Users should regularly using the soapy water to wipe on connecting part of each pipe to test whether has the gas leakage.

1. Clean the accumulated dirt and dust on the casing of the appliance by cloth regularly. Do not use chemical or volatile solvent.
2. Use a neutral detergent to clean all surfaces and areas then wipe it dry. Taking care not to allow water to enter the top vent.
3. Before each use, check the stainless steel filter on the "Water input" pipe is in place and clean if have any particles.
4. Do not submerge the appliance in a sink or container.
5. Do not use abrasive cleaners or bleach.

**NOTE** Do not drop dirt and dusts into the fire holes of burner and electric parts, do not loosen or damage other parts as well. To re-fix the parts after cleaning, refer to the installation requirements.

## DRAINING THE APPLIANCE AVOID FROZEN BROKEN BELOW 0°C

1. During the stage of no using, the temperature is same between the inside and outside of the appliance, the water will expand when temperature reach 0°C, even broken the water pipe.
2. Operate the drain plug at the base of the appliance to drain off the residual water from the appliance and then screw it tightly if the environment where the appliance is installed drops below 0°C. This can prevent the cold from damaging the appliance. Failure to do so will avoid your warranty.



## BEFORE OPERATE THE DRAIN PLUG, MUST BE

1. Ensure that the appliance is disconnected from the gas supply.
2. Ensure that the appliance is disconnected from the water supply.
3. Ensure that the shower hose is disconnected from the appliance.

## TROUBLESHOOTING

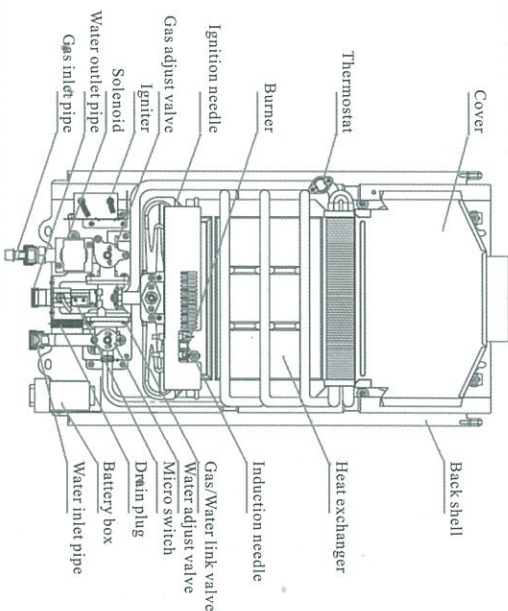
| Protective function     | Reaction                                                                                               | How to do                                                                   |
|-------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Water pressure too high | If water pressure is over 1000KPa, the water-out valve will release water and adjust to lower pressure | Increase the valve pressure limit according to local water supply pressure  |
| Water pressure too low  | Check that the water pressure is at least 15KPa to activate the burners                                | Use the appliance later when pressure becomes higher                        |
| Low battery             | The power of battery will become less after use for some time, thus the appliance cannot be ignited.   | Change battery and make sure new battery installed in the correct position. |
| Over heat protection    | The appliance automatically shuts off when water temperature is over (77°C±3°C)                        | Re-start the appliance later when water becomes cooler                      |

## TROUBLESHOOTING GUIDE

This guide should be followed in case of failure of the appliance to operate correctly. For more information, please refer to Service Manual or contact service provider.

| Causes                                                | Malfunction |   |   |   |   |   |   |   |   |   | Solutions                                                 |
|-------------------------------------------------------|-------------|---|---|---|---|---|---|---|---|---|-----------------------------------------------------------|
|                                                       | A           | B | C | D | E | F | G | H | I | J |                                                           |
| Overall fuel gas valve is unopened                    | ●           |   |   |   |   |   |   |   |   |   | Open overall valve of gas supply                          |
| Water supply valve is unopened                        | ●           |   |   |   |   |   |   |   |   |   | Open valve of water supply                                |
| Improper regulation method of water temperature       |             |   |   | ● |   |   |   |   |   |   | Enlarge gas volume, reduce water volume                   |
| Electrical leakage protective switch is not restored  | ●           |   |   |   | ● |   |   |   |   |   | Reduce gas volume, enlarge water supply                   |
| Improper position of water switch                     | ●           |   |   |   |   |   |   |   |   |   | Restoration of electric leakage protective switch         |
| Air exiting inside fuel gas pipe                      | ●           | ● |   |   |   |   |   |   |   |   | Turn water knob to hot water point                        |
| Inadequate fresh air supply                           |             |   | ● |   |   |   |   |   |   |   | Repeat opening and closing water knob for several times   |
| Fuel gas pressure                                     |             |   |   |   |   |   |   |   |   |   | Improve ventilation and ensure air supply                 |
| Too high                                              | ●           | ● |   |   |   |   |   |   |   |   | Regulate pressure relief valve, reduce overall gas supply |
| Too low                                               |             |   | ● | ● |   |   |   |   |   |   | Check if gas rubber pipe twists or not                    |
| Too high                                              |             |   |   | ● |   |   |   |   |   |   | Reduce water supply                                       |
| Water pressure                                        |             |   |   |   |   |   |   |   |   |   | Utilise when water pressure recovers to normal            |
| Too low                                               | ●           | ● |   |   |   |   |   |   |   |   | Open gas valve completely                                 |
| Gas valve is half opened                              |             |   |   | ● |   |   |   |   |   |   | Shorten rubber pipe                                       |
| Inadequate supply of fuel gas                         |             |   |   |   |   |   |   |   |   |   | Displace joints of rubber pipe                            |
| Too long pipe                                         |             |   |   | ● |   |   |   |   |   |   | Stop other users' using fuel gas                          |
| Too small through diameter of joints                  |             |   |   | ● |   |   |   |   |   |   | Clean filtration net on water admitting orifice           |
| Simultaneous consumption of fuel gas by several users |             |   |   | ● |   |   |   |   |   |   | Clean shower device                                       |
| Blockage of water route system                        | ●           |   |   |   | ● |   |   |   |   |   | Clean flue pipe                                           |
| Blockage of shower                                    | ●           |   |   |   |   |   |   |   |   |   | Displace batteries                                        |
| Blockage of vent pipe                                 | ●           |   |   |   |   | ● |   |   |   |   | Reduce water volume                                       |
| Inadequate battery voltage                            | ●           | ● |   |   |   |   |   |   |   |   | Utilise when air pressure recovers to normal              |
| Too low water temperature                             |             |   |   | ● |   |   |   |   |   |   | Ask for authorised person to repair it                    |
| Exorbitant air pressure protective device             | ●           |   |   |   |   |   |   |   |   |   | Ask for authorised person to repair it                    |
| Electrical leakage protective device works            | ●           |   |   |   |   |   |   |   |   |   | Ask for authorised person to repair it                    |
| Heat protective switch works                          |             | ● |   |   |   |   |   |   |   |   | Ask for authorised person to repair it                    |
| Other causes                                          |             |   |   |   |   |   |   |   |   | ● | Ask for authorised person to repair it                    |
| A. Ignition failure                                   |             |   |   |   |   |   |   |   |   |   | F. Sparks from fire peep hole                             |
| B. Blasting combustion                                |             |   |   |   |   |   |   |   |   |   | G. Removed flame and renegade fire                        |
| C. Flameout during operation                          |             |   |   |   |   |   |   |   |   |   | H. Returned fire                                          |
| D. Too low temperature                                |             |   |   |   |   |   |   |   |   |   | I. Flameout at point of large water volume                |
| E. Too high temperature                               |             |   |   |   |   |   |   |   |   |   | J. Other malfunctions                                     |

## MAJOR COMPONENTS



## MAJOR TECHNICAL PARAMETER

| PORTABLE GAS HOT WATER HEATER |         | Certification |
|-------------------------------|---------|---------------|
| Model                         | BM158   |               |
| Gas type                      | ULPG    |               |
| TTP(kPa)                      | 2.75    |               |
| Capacity                      | 8L/min  |               |
| Total nominal gas consumption | 30 MJ/h |               |
| Injector size                 | 0.63mm  |               |
| Minimum water pressure        | 15kPa   |               |
| Maximum water pressure        | 1000kPa |               |
| Manufacturer                  | Junsky  |               |

### REMARK:

1. Gas type and rated pressure should be according to the parameter on the appliance's body.
2. Above is the standard configuration of a full set of this appliance, the actual configuration would be different according to different areas.
3. IT MAY BE HAZARDOUS TO ATTEMPT TO FIT OTHER TYPES OF GAS CONTAINERS

